

### **REMARKS/ARGUMENTS**

Original claims 1-16 have been canceled and replaced by new claims 17-32.

New claims 17 and 25 are directed to a method and a regulating device respectively for calibrating and/or regulating a mixing valve in a cooling circuit of an internal combustion engine.

"Two partial flows" of original claims 1 and 9 have been specified in the new claims as "partial flows passing through an heat exchanger (16) and through a bypass line (20)" as disclosed in the specification, page 4, lines 9 to 15.

"As a function of controlled quantity" of original claims 1 and 9 has been specified "as a function of engine outlet temperature ( $T_{EO}$ ), cooler outlet temperature ( $T_{CO}$ ) and target engine inlet temperature ( $T_{EItarget}$ )" as disclosed in the specification, page 5, lines 10 to 15.

"Separating ratio of the mixing valve or the mixing ratio" has been replaced by mixing ratio (MR) of the mixing valve.

"Determination of the mixing ratio (MR) by comparing a target quantity with an actual measured quantity" has been specified as "computing a target mixing ratio ( $MR_{target}$ ) of the mixing valve (12) from the engine outlet temperature ( $T_{EO}$ ), the cooler outlet temperature ( $T_{CO}$ ) and the target engine inlet temperature ( $T_{EItarget}$ ), and computing an actual mixing ratio ( $MR_{actual}$ ) of the mixing valve (12) from the engine outlet temperature ( $T_{EO}$ ), the cooler outlet temperature ( $T_{CO}$ ) and the actual engine inlet temperature ( $T_{EI}$ )", as disclosed in the specification, page 5, lines 10 to 15 and page 6, line 9 to 12 in connection with page 4 lines 20 to 26, respectively, the target engine inlet temperature ( $T_{EItarget}$ ) being the target quantity and the actual engine inlet temperature ( $T_{EI}$ ) being the actual measured quantity.

"Taking into consideration a correction value that is computed during operation in calculating the separating ratio or mixing ratio (MR)" has been specified as "computing a correction value ( $\Delta x$ ) for a valve control value ( $x_{valve}$ ) of the mixing valve (12) from the actual mixing ratio ( $MR_{real}$ ) during operation, and adding the correction value ( $\Delta x$ ) to the valve control value ( $x_{valve}$ )" as disclosed in the specification, page 6, lines 9 to 15.

Knebel et al. discloses a process for controlling a plumbing combination set with a multi-disk mixing valve for hot and cold water, whereby temperature is adjusted by making a comparison between the actual temperature of the mixing water and the target temperature of the mixing water. There is no mention of a regulation or calibration of a mixing valve in a cooling

circuit of an internal combustion engine, nor of the various steps or means mentioned in new claims 17 and 25 respectively.

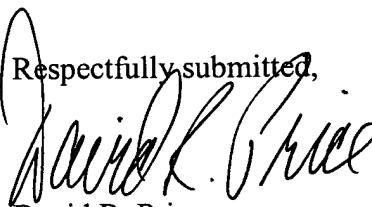
Aschner et al. discloses a control system for the supercharging pressure of a supercharged internal combustion engine which has nothing to do with the method or regulating device according to new claims 17 and 25 respectively.

Therefore, new claims 17 and 25 are allowable.

Claims 18-24 and 26-32 depend from claims 17 and 25, respectively, and are therefore allowable. These claims also contain additional patentable subject matter.

Claims 17-32 have also been written to overcome the objections to claims 5-7 in the Office action.

In view of the foregoing, entry of the above amendment and allowance of claims 17-32 are respectfully requested.

Respectfully submitted,  
  
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